



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,484	02/07/2001	Christopher J. Edge	10257US01 (EKC 90067)	4699
1333	7590	04/27/2006	EXAMINER	
PATENT LEGAL STAFF EASTMAN KODAK COMPANY 343 STATE STREET ROCHESTER, NY 14650-2201			AMINI, JAVID A	
			ART UNIT	PAPER NUMBER
			2628	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,484

Applicant(s)

EDGE ET AL

Examiner

Javid A. Amini

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/10/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments filed 7/20/2005 have been fully considered but they are not persuasive.

Applicant on page 11 regarding the second paragraph of 35 U.S.C. 112, tries explaining the limitations in claims 40-43. The limitations are: complex shape (i.e. substantially non-rectangular, and may include numerals or letters), simple shape (i.e. patches or bars), and increased perimeter (i.e. a dark shape facilitates gray scale differentiation by a human eye). Applicant on page 12 added that one skilled in the art would have no difficulty ascertaining the metes and bounds of the claim limitations.

Examiner's reply: Applicant should be referring to page and line number of the current specification, during the examination of the application, not to paragraphs in the PG-PUB of this Application (see page 11 of the remarks). Applicant considers the complex shape as substantially non-rectangular, that is still considered as a broad limitation. Because it covers all shapes, which do not have right angles or perpendicular axes. Applicant discloses that may include numeral or letters, Examiner's interpretation: also it may not include numeral or letters. Examiner's question: Can ten persons skilled in the art predict the same complex shape as claim invention claimed? Similar matter applies regarding the simple shape as patches or bars. The patches can be considered as small pieces and no shape associated with it. The bars may be considered as rectangular shape. The increased perimeter (i.e. a dark shape facilitates gray scale differentiation by a human eye), raises a question. The human eye factor is very important, since a dark shape facilitates gray scale differentiation by a human eye. Does Applicant consider getting the same

Art Unit: 2628

results, if e.g., ten persons skilled in the art using their eyes to differentiate the gray scale of the dark shape? The rejection of the second paragraph of 35 U.S.C. 112 is still maintained.

Suggestion: Needs more concert explanations.

Applicant on page 12 regarding the rejection under 35 U.S.C. 102(b) argues that the reference Gentile fails to disclose displaying a sequence of dark elements against a black background and non-rectangular shape.

Examiner's reply: Gentile discloses on page 4 line 31 that displays three grey patches (i.e. equivalent to a broad limitation in the claimed invention as "a dark elements".), and at line 34 discloses black screen background. Applicant argues the Examiner misinterpreted the non-rectangular shape of the current invention with the Gentile's "displaying three grey patches". The patches can be considered as small pieces and no shape associated with it, *id.* . Therefore one skilled in the art may consider it as a non-rectangular.

Reminder: the following paragraph is just for information only, because displays inherently made up of number of pixels and a pixel on a display considers as an element. Pixels can be either rectangular or non-rectangular or square. A number called the *aspect ratio* describes the square ness of a pixel. For example, a 1.25:1 aspect ratio means that each pixel is 1.25 times wider than it is high. Pixels on computer monitors are usually square, but pixels used in digital video have non-square aspect ratios, such as those used in the PAL and NTSC variants of the CCIR 601 digital video standard, and the corresponding anamorphic widescreen formats.

Applicant on page 13 argues similar to the previous arguments.

Applicant on the same page argues the black point and white point are not similar.

Examiner's reply: the prior art relates to the field of digital image processing, and more particularly to color calibration and color enhancement for digital imaging systems. The current invention relates to improvement of color image display accuracy in a computer network having display devices with different color output characteristics. The invention makes use of gray elements in the form of complex, non-rectangular shapes such as numerals, letters, and the like to aid in a blackpoint estimate for characterization of each display device. The specification on page 2 lines 27-28 teaches three separate blackpoints can be estimated, one for each of the color channels of the display device, e.g., red, green, and blue (R, G, and B). The prior art on page 2 lines 1-13 teaches calibrating the color display required certain parameters, these parameters include the X, Y, and Z coordinates of the media white point; the relative X, Y, Z values corresponding to red, green and blue; and the red, green and blue tone reproduction curves. The XYZ values are the three standard primary colors of the CIE chromaticity diagram. Once all devices involved in a particular workflow are appropriately characterized by the corresponding profiles, color management systems can be used to convert colors from the color space of one device to the color space of another device, therefore leading to consistent color reproduction across the devices as well as operating system platforms.

Examiner's suggestion: Applicant may explicitly specify the significant of using blackpoint over the white point.

Applicant on page 14 under rejection of 35 U.S.C. 103(a) discloses no comment regarding the second reference Gormish's invention that relates to the determination and correction of non-linearity for a display device.

Examiner encourages Applicant to schedule an interview or provide explicit responses to at least Examiner's concerns.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 40-43 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant on page 13 claims 40-43 discloses terms of “a complex shape” and “a simple shape” and “an increased perimeter”. The following questions raised:

- 1- What does Applicant consider an object as a complex shape?
- 2- What does Applicant consider an object as a simple shape?
- 3- How does Applicant define complex and simple shapes?
- 4- What does Applicant mean by a term “an increased perimeter”?

The response of these questions should be provided base on the parameters that Applicant considers.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6, 9-13, 37, 23-24, 28,31-32, 34-35 and 39 rejected under 35 U.S.C. 102(b) as being anticipated by Gentile Ronald WO 99/56088 publication date November 4, 1999, (hereinafter refers as Gentile).

1. Claims 1, 23, 37 and 39.

Gentile on page 3 lines 2-3 teaches a technique that includes displaying a plurality of gray patches on a screen, and on page 4 lines 33-34 teaches the gray patches are displayed on a completely black screen background, in fig. 1 step 106 illustrates displaying the gray patches with $i-1$, i , $i+1$ that considers a non-rectangular shape, see the following steps: "A method comprising: displaying a sequence of dark elements against a black background, wherein each of the dark elements has a different gray value and a non-rectangular shape"; Examiner's interpretation: Applicant uses a term "estimating a blackpoint" and the reference Gentile uses a term "estimating white point", these two terms are similar, according to Applicant's and the reference's definitions. Gentile in fig. 1 step 118 illustrates the claim language, "estimating a blackpoint for a display device based on one of the dark elements selected by the user that is visible and appears to most closely match the background".

2. Claims 2 and 24.

Gentile on page 2 lines 9-11 teaches the step of "modifying a color image for the display device based on the estimated blackpoint".

3. Claims 6 and 28.

Gentile on pages 1-2 lines 25-31 and 1-13 respectively, teaches the limitation in claim 6.

4. Claims 9 and 31.

The rejection of claim 1 applies to rejection of claim 9.

Art Unit: 2628

5. Claims 10 and 32.

Gentile on page 3 lines 16-34 teaches the limitations in claim 10.

6. Claims 12 and 34.

Gentile in fig. 1 step 106 illustrates displaying the gray patches with $i-1$, i , $i+1$ that considers a non-rectangular shape.

7. Claims 13 and 35.

Gentile on page 1 lines 24-31 teaches the limitations in claim 13. "Estimating a gamma and gray balance for the display device; generating a color profile for the display device based on the estimated black points, the gamma, and the gray balance; and modifying the color image for the display device using the color profile".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5, 7-8, 14-22, 25-27, 29-30, 33, 36 and 38 rejected under 35 U.S.C. 103(a) as being unpatentable over Gentile Ronald, and further in view of Gormish, U.S. patent 5,910,796..

8. Claims 3 and 25.

Gentile does not explicitly specify a computer network, however Gormish in fig 1B illustrates a client computer system in communication with a server computer system over a wide area network (WAN). However, since most computer users do not have access to relatively expensive

Art Unit: 2628

measurement and calibration equipment, these users generally resort to an alternate solution of using a software tool in conjunction with a physical template whose brightness and hue are compared and matched to that of the display. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Gormish into Gentile for performing gamma determination and correction in a client-server environment over a wide area network (WAN).

9. Claims 4 and 26.

Gormish in fig. 1 illustrates a server system 65 may store a single image file and, in response to the client's request, modify the file according to the gamma estimate and provide the modified image file to the client system 66.

10. Claims 5, 16 and 27.

Gormish in col. 5, lines 43-51 teaches (referring also to fig. 1B) a software stored in the server computer system 65 and is used to determine the gamma of a monitor associated with a client computer system 66.

11. Claims 7-8 and 29-30.

Gormish in figs. 1 and 6 illustrates a server system 65 may store a single image file and, in response to the client's request, modify the file according to the gamma estimate and provide the modified image file to the client system 66.

12. Claims 14, 22 and 36.

Gormish in fig. 6 illustrates the limitations in claim 14.

13. Claims 15, 17 and 38

Art Unit: 2628

Gentile on page 3 lines 2-3 teaches a technique that includes displaying a plurality of gray patches on a screen, and on page 4 lines 33-34 teaches the gray patches are displayed on a completely black screen background, in fig. 1 step 106 illustrates displaying the gray patches with $i-1$, i , $i+1$. Gentile does not explicitly specify a computer network, however Gormish in fig 1B illustrates a client computer system in communication with a server computer system over a wide area network (WAN). However, since most computer users do not have access to relatively expensive measurement and calibration equipment, these users generally resort to an alternate solution of using a software tool in conjunction with a physical template whose brightness and hue are compared and matched to that of the display. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Gormish into Gentile for performing gamma determination and correction in a client-server environment over a wide area network (WAN).

14. Claim 18

Gentile on page 3 lines 16-34 teaches the limitations in claim 18.

15. Claims 19, 33.

Gormish in fig. 1A illustrates the limitation.

16. Claim 20.

Gentile in fig. 1 step 106 illustrates displaying the gray patches with $i-1$, i , $i+1$ that considers a non-rectangular shape.

17. Claim 21.

Gentile on page 1 lines 24-31 teaches the limitations in claim 21. "Estimating a gamma and gray balance for the display device.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2628

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Javid A Amini
Examiner
Art Unit 2628

Javid Amini



Kee M. Tung
Primary Examiner